Author Index of Volume 11

Abuin, E., 57
Appenroth, K.-J., 343
Augsten, H., 343

Baima, S., 107
Baronzio, G. F., 3
Baum, D., 117
Baumgartner, B. J., 203
Braslavsky, S., 377
Brauer, H.-D., 285
Brunner, H., 129

Calzavara, F., 87
Canti, G., 319
Chacón, J. N., 261
Checcucci, G., 49
Conn, P. F., 41
Crippa, P. R., 371
Cubeddu, R., 319

Fragata, M., 329
Freitas, I., 3
Friedmann, H., 87
Furmanchuk, A. V., 307
Furuya, M., 163

Galland, P., 103, 189
Ghetti, F., 49
Grewer, Ch., 285
Gurzadyan, G. G., 269

Hase, E., 219
Hashimoto, T., 353
Heelis, P. F., 365
Hermsmeier, D., 189
Herrmann, R. G., 151
Horneck, G., 69
Horwitz, B. A., 117

Ishii, K., 163
Ispiryan, R. K., 269

Jasper, F., 139
Johanningmeier, U., 139
Johnsen, B., 277

Kamalov, V. F., 31
Kortenjann, M., 139
Kostenich, G. A., 307
Koziolowa, A., 365

Ladan, H., 295
Laulicht, I., 87
Lenci, F., 49
Lindberg, C., 69
Lissi, E., 57
Lubart, R., 87

Machado, R., 81
Macino, G., 107
Mala, E., 189
Malik, Z., 295
Martini, F., 371
Masatsuji, F., 163
Meier, A., 285
Moan, J., 277
Montforts, F.-P., 285
Morelli, G., 107
Mullet, J. E., 203

Nénonéné, E. K., 329
Nir, U., 295
Nitzan, Y., 295
Nultsch, W., 377

Obrenović, S., 377
Oelmüller, R., 151
Osafune, T., 219

Palomares, R., 151
Piette, J., 241

Quednau, B., 139

Ramponi, R., 319
Richter, G., 173
Rivas, C., 81
Rochkind, S., 87
Rückert, V., 57
Rüdiger, W., 129

Schalch, W., 41
Schermann, G., 285
Schiff, J. A., 219
Schmidt, R., 285
Schulz, R., 189
Schwartzbach, S. D., 219
Senger, H., 103, 189
Shichijo, C., 353
Silva, E., 57
Song, G., 129
Song, P.-S., 49
Specht, U., 173
Strzałka, K., 329

Taroni, P., 319
Thielmann, J., 189
Thümmler, F., 129
Tomio, L., 87
Tomizawa, K.-I., 163
Truscott, T. G., 41, 261, 377

Vargas, F., 81
Viappiani, C., 371
Völcker, A., 285
Voskanyan, K. Sh., 269

Yatsuhashi, H., 353

Zhavrid, E. A., 307
Zhuravkin, I. N., 307

Elsevier Sequoia, Lausanne

Subject Index of Volume 11

Anthocyanin
ultraviolet action spectra for the induction and inhibition of anthocyanin synthesis in broom sorghum seedlings, 353
Antibacterial drug
decarboxylation and singlet oxygen production in the photolysis of nalidixic acid, 81
Antimicrobial agents
in vivo effects of porphyrins on bacterial DNA, 295
Atmospheric pressure
action spectra of survival and spore photoproduct formation of *Bacillus subtilis* irradiated with short-wavelength (200–300 nm) UV at atmospheric pressure and *in vacuo*, 69

Bacterial spores
action spectra for survival and spore photoproduct formation of *Bacillus subtilis* irradiated with short-wavelength (200–300 nm) UV at atmospheric pressure and *in vacuo*, 69
Barley
plastid DNA synthesis and nucleic acid-binding proteins in developing barley chloroplasts, 203
Biologically effective UV radiation
temperature sensitivity of the Robertson–Berger sunburn meter, model 500, 277
Blepharisma
videomicroscopic study of the effect of a singlet oxygen quencher on *Blepharisma Japonicum* photobehavior, 49
Blue light
changes in synthesis and abundance of specific polypeptides at early and late stages of blue-light-induced sporulation of *Trichoderma*, 117
different blue-light requirement for the accumulation of transcripts from nuclear genes for thylakoid proteins in *Nicotiana tabacum* and *Lycopersicon esculentum*, 151
expression of early genes in light-induced chloroplast differentiation of cultured plant cells, 173
Blue light effects
photoregulation of the *albino*-3 gene in *Neurospora crassa*, 107
Blue-light receptor
antagonistic blue- and red-light regulation of *cab*-gene expression during photosynthetic adaptation in *Scenedesmus obliquus*, 189

cab-gene expression
antagonistic blue- and red-light regulation of *cab*-gene expression during photosynthetic adaptation in *Scenedesmus obliquus*, 189
Carotenoid
photoregulation of the *albino*-3 gene in *Neurospora crassa*, 107
Carotenoids
singlet oxygen and carotenoid interaction, 41
cDNA library
expression of early genes in light-induced chloroplast differentiation of cultured plant cells, 173
Chlorin derivative
potential photosensitizers for photodynamic therapy.
III. Photophysical properties of a lipophilic chlorin and its zinc and tin chelates, 285
Chlorin e_6
photodynamic therapy with chlorin e_6. A morphologic study of tumor damage efficiency in experiment, 307
Chlorophyll intermediates
control of *cab* gene expression in synchronized *Chlamydomonas reinhardtii* cells, 139
Chlorophyll synthesis
antagonistic blue- and red-light regulation of *cab*-gene expression during photosynthetic adaptation in *Scenedesmus obliquus*, 189

Elsevier Sequoia, Lausanne

Chloroplast differentiation
expression of early genes in light-induced chloroplast differentiation of cultured plant cells, 173
Chromosome
in vivo effects of porphyrins on bacterial DNA, 295
Compartimentalized osmiophilic structure (cos)
photocontrol and processing of LHCP II apoprotein in *Euglena*: possible role of Golgi and other cytoplasmic sites, 219
Conformational dynamics
picosecond fluorescence and coherent anti-Stokes Raman spectroscopy study of relaxation of electronic excitation in β-carotene, 31
Cooperative PSII units
$MgCl_2$-induced reversal of oxygen evolution decay in photosystem II particles incubated with phosphatidylglycerol vesicles at high lipid/photosystem II ratio, 329
Crocetin
videomicroscopic study of the effect of a singlet oxygen quencher on *Blepharisma Japonicum* photobehavior, 49
Cross-link
two-quantum photoprocesses in DNA under picosecond laser UV irradiation at 216 and 270 nm, 269
Cytoplasmic control and processing
photocontrol and processing of LHCP II apoprotein in *Euglena*: possible role of Golgi and other cytoplasmic sites, 219

Disulphonated aluminium phthalocyanin
time-gated fluorescence spectroscopy of porphyrin derivatives and aluminium phthalocyanine incorporated *in vivo* in a murine ascitic tumour model, 319
DNA
biological consequences associated with DNA oxidation mediated by singlet oxygen, 241
two-quantum photoprocesses in DNA under picosecond laser UV irradiation at 216 and 270 nm, 269
DNA damage
ultraviolet action spectra for the induction and inhibition of anthocyanin synthesis in broom sorghum seedlings, 353
DNA synthesis
plastid DNA synthesis and nucleic acid-binding proteins in developing barley chloroplasts, 203
DNA-binding proteins
plastid DNA synthesis and nucleic acid-binding proteins in developing barley chloroplasts, 203
Dormancy
photophysiology of turion germination in *Spirodela polyrhiza* (L.) Schleiden. IX. Interaction of light and gibberellic acid in the removal of dormancy, 343

E. coli
in vivo effects of porphyrins on bacterial DNA, 295
Electron transfer
effect of hydrogen bonding on the electron transfer reactions of the excited singlet and triplet states of flavins, 365
Electron–phonon interaction
direct evidence of electron–phonon interaction in melanins, 371
Energy transfer
singlet oxygen and carotenoid interaction, 41
Etiolated seedlings
phytochrome-dependent mRNA accumulation for nuclear coded photosystem I subunits in spinach seedlings, 129
Euglena gracilis var. *bacillaris* and strain z
photocontrol and processing of LHCP II apoprotein in *Euglena*: possible role of Golgi and other cytoplasmic sites, 219
Excited electronic states
picosecond fluorescence and coherent anti-Stokes Raman spectroscopy study of relaxation of electronic excitation in β-carotene, 31
Experimental tumors
photodynamic therapy with chlorin e_6. A morphologic study of tumor damage efficiency in experiment, 307

Flavin singlet state
effect of hydrogen bonding on the electron transfer reactions of the excited singlet and triplet states of flavins, 365
Flavin triplet state
effect of hydrogen bonding on the electron transfer reactions of the excited singlet and triplet states of flavins, 365
Fluorescence
effects of pH and ionic micelles on the riboflavin-sensitized photoprocesses of tryptophan in aqueous solution, 57
potential photosensitizers for photodynamic therapy. III. Photophysical properties of a lipophilic chlorin and its zinc and tin chelates, 285
$^1O_2$-formation
potential photosensitizers for photodynamic therapy. III. Photophysical properties of a lipophilic chlorin and its zinc and tin chelates, 285

Gene expression
changes in synthesis and abundance of specific polypeptides at early and late stages of blue-light-induced sporulation of *Trichoderma*, 117
expression of early genes in light-induced chloroplast differentiation of cultured plant cells, 173
photoregulation of the *albino*-3 gene in *Neurospora crassa*, 107
Germination
photophysiology of turion germination in *Spirodela polyrhiza* (L.) Schleiden. IX. Interaction of light and gibberellic acid in the removal of dormancy, 343
Gibberellic acid
photophysiology of turion germination in *Spirodela polyrhiza* (L.) Schleiden. IX. Interaction of light and gibberellic acid in the removal of dormancy, 343
Golgi
photocontrol and processing of LHCP II apoprotein in *Euglena*: possible role of Golgi and other cytoplasmic sites, 219
Gram negative
in vivo effects of porphyrins on bacterial DNA, 295
Gram positive
in vivo effects of porphyrins on bacterial DNA, 295

Hematoporphyrin derivative
time-gated fluorescence spectroscopy of porphyrin derivatives and aluminium phthalocyanine incorporated *in vivo* in a murine ascitic tumour model, 319
Hybridization
distribution of type I phytochrome (*phy*a) RNA1 and RNA2 in etiolated pea seedlings, 163
Hydrogen bonding
effect of hydrogen bonding on the electron transfer reactions of the excited singlet and triplet states of flavins, 365

Krypton laser
photodynamic therapy with chlorin e_6. A morphologic study of tumor damage efficiency in experiment, 307

LHCP II apoprotein
photocontrol and processing of LHCP II apoprotein in *Euglena*: possible role of Golgi and other cytoplasmic sites, 219
Light regulation
photoregulation of the *albino*-3 gene in *Neurospora crassa*, 107
Light-harvesting chlorophyll protein
photocontrol and processing of LHCP II apoprotein in *Euglena*: possible role of Golgi and other cytoplasmic sites, 219
Light-regulation
control of *cab* gene expression in synchronized *Chlamydomonas reinhardtii* cells, 139
Lycopene
singlet oxygen and carotenoid interaction, 41
Lycopersicon esculentum
different blue-light requirement for the accumulation of transcripts from nuclear genes for thylakoid proteins in *Nicotiana tabacum* and *Lycopersicon esculentum*, 151

Magnesium chloride
$MgCl_2$-induced reversal of oxygen evolution decay in photosystem II particles incubated with phosphatidylglycerol vesicles at high lipid/photosystem II ratio, 329
Melanins
direct evidence of electron–phonon interaction in melanins, 371
Metal chelates
potential photosensitizers for photodynamic therapy. III. Photophysical properties of a lipophilic chlorin and its zinc and tin chelates, 285
MPTP
chemically induced Parkinson's disease III: a study of a possible role of singlet molecular oxygen in Parkinson's disease, 261
mRNA contents
distribution of type I phytochrome (*phya*) RNA1 and RNA2 in etiolated pea seedlings, 163

Nalidixic acid
decarboxylation and singlet oxygen production in the photolysis of nalidixic acid, 81
Neurospora crassa
photoregulation of the *albino*-3 gene in *Neurospora crassa*, 107
Neurotoxicity
chemically induced Parkinson's disease III: a study of a possible role of singlet molecular oxygen in Parkinson's disease, 261
Nicotiana tabacum
different blue-light requirement for the accumulation of transcripts from nuclear genes for thylakoid proteins in *Nicotiana tabacum* and *Lycopersicon esculentum*, 151
Non-radiative relaxation
direct evidence of electron–phonon interaction in melanins, 371
Nuclear gene expression
control of *cab* gene expression in synchronized *Chlamydomonas reinhardtii* cells, 139
Nuclear genes for thylakoid proteins
different blue-light requirement for the accumulation of transcripts from nuclear genes for thylakoid proteins in *Nicotiana tabacum* and *Lycopersicon esculentum*, 151

Oxidation
biological consequences associated with DNA oxidation mediated by singlet oxygen, 241
Oxidative stress
chemically induced Parkinson's disease III: a study of a possible role of singlet molecular oxygen in Parkinson's disease, 261
Oxygen evolution
$MgCl_2$-induced reversal of oxygen evolution decay in photosystem II particles incubated with phosphatidylglycerol vesicles at high lipid/photosystem II ratio, 329
Oxygenation strategies
tumor hypoxia, reoxygenation and oxygenation strategies: possible role in photodynamic therapy, 3

Parkinson's disease
chemically induced Parkinson's disease III: a study of a possible role of singlet molecular oxygen in Parkinson's disease, 261
pH effect
effects of pH and ionic micelles on the riboflavin-sensitized photoprocesses of tryptophan in aqueous solution, 57
Phosphatidylglycerol vesicles
$MgCl_2$-induced reversal of oxygen evolution decay in photosystem II particles incubated with phosphatidylglycerol vesicles at high lipid/photosystem II ratio, 329
Phosphorescence
potential photosensitizers for photodynamic therapy. III. Photophysical properties of a lipophilic chlorin and its zinc and tin chelates, 285
Photocontrol
photocontrol and processing of LHCP II apoprotein in *Euglena*: possible role of Golgi and other cytoplasmic sites, 219
Photodynamic reactions
videomicroscopic study of the effect of a singlet oxygen quencher on *Blepharisma Japonicum* photobehavior, 49

Photodynamic therapy
photodynamic therapy with chlorin e_6. A morphologic study of tumor damage efficiency in experiment, 307
potential photosensitizers for photodynamic therapy. III. Photophysical properties of a lipophilic chlorin and its zinc and tin chelates, 285
time-gated fluorescence spectroscopy of porphyrin derivatives and aluminium phthalocyanine incorporated *in vivo* in a murine ascitic tumour model, 319
tumor hypoxia, reoxygenation and oxygenation strategies: possible role in photodynamic therapy, 3
Photokilling
videomicroscopic study of the effect of a singlet oxygen quencher on *Blepharisma Japonicum* photobehavior, 49
Photomorphogenesis
changes in synthesis and abundance of specific polypeptides at early and late stages of blue-light-induced sporulation of *Trichoderma*, 117
Photomovement
videomicroscopic study of the effect of a singlet oxygen quencher on *Blepharisma Japonicum* photobehavior, 49
Photoreactivation
ultraviolet action spectra for the induction and inhibition of anthocyanin synthesis in broom sorghum seedlings, 353
Photosensitization
effects of pH and ionic micelles on the riboflavin-sensitized photoprocesses of tryptophan in aqueous solution, 57
Photosynthetic adaptation
Antagonistic blue- and red-light regulation of *cab*-gene expression during photosynthetic adaptation in *Scenedesmus obliquus*, 189
Photosystem I subunits
phytochrome-dependent mRNA accumulation for nuclear coded photosystem I subunits in spinach seedlings, 129
Photosystem II
$MgCl_2$-induced reversal of oxygen evolution decay in photosystem II particles incubated with phosphatidylglycerol vesicles at high lipid/photosystem II ratio, 329
Phototoxicity
decarboxylation and singlet oxygen production in the photolysis of nalidixic acid, 81
Phytochrome
distribution of type I phytochrome (*phy*a) RNA1 and RNA2 in etiolated pea seedlings, 163
photophysiology of turion germination in *Spirodela polyrhiza* (L.) Schleiden. IX. Interaction of light and gibberellic acid in the removal of dormancy, 343
ultraviolet action spectra for the induction and inhibition of anthocyanin synthesis in broom sorghum seedlings, 353
Picosecond fluorescence
picosecond fluorescence and coherent anti-Stokes Raman spectroscopy study of relaxation of electronic excitation in β-carotene, 31
Picosecond UV laser
two-quantum photoprocesses in DNA under picosecond laser UV irradiation at 216 and 270 nm, 269
Pisum sativum
distribution of type I phytochrome (*phy*a) RNA1 and RNA2 in etiolated pea seedlings, 163
Plastid
plastic DNA synthesis and nucleic acid-binding proteins in developing barley chloroplasts, 203
Plasmid DNA
in vivo effects of porphyrins on bacterial DNA, 295
Polymixin B nonapeptide
in vivo effects of porphyrins on bacterial DNA, 295
Porphyrins
in vivo effects of porphyrins on bacterial DNA, 295
Primer extension
distribution of type I phytochrome (*phy*a) RNA1 and RNA2 in etiolated pea seedlings, 163

Reconstituted membranes
$MgCl_2$-induced reversal of oxygen evolution decay in photosystem II particles incubated with phosphatidyl-

glycerol vesicles at high lipid/photosystem II ratio, 329
Reoxygenation
tumor hypoxia, reoxygenation and oxygenation strategies: possible role in photodynamic therapy, 3
Riboflavin
effects of pH and ionic micelles on the riboflavin-sensitized photoprocesses of tryptophan in aqueous solution, 57
Robertson–Berger meter
temperature sensitivity of the Robertson–Berger sunburn meter, model 500, 277

Scenedesmus obliquus
antagonistic blue- and red-light regulation of *cab*-gene expression during photosynthetic adaptation in *Scenedesmus obliquus*, 189
Signal transduction chain
different blue-light requirement for the accumulation of transcripts from nuclear genes for thylakoid proteins in *Nicotiana tabacum* and *Lycopersicon esculentum*, 151
Singlet molecular oxygen
videomicroscopic study of the effect of a singlet oxygen quencher on *Blepharisma Japonicum* photobehavior, 49
Singlet oxygen
biological consequences associated with DNA oxidation mediated by singlet oxygen, 241
chemically induced Parkinson's disease III: a study of a possible role of singlet molecular oxygen in Parkinson's disease, 261
decarboxylation and singlet oxygen production in the photolysis of nalidixic acid, 81
singlet oxygen and carotenoid interaction, 41
Sorghum bicolor
ultraviolet action spectra for the induction and inhibition of anthocyanin synthesis in broom sorghum seedlings, 353
Specific antibody
changes in synthesis and abundance of specific polypeptides at early and late stages of blue-light-induced sporulation of *Trichoderma*, 117
Spectral response
temperature sensitivity of the Robertson–Berger sunburn meter, model 500, 277
Spinacea oleracea
phytochrome-dependent mRNA accumulation for nuclear coded photosystem I subunits in spinach seedlings, 129
Spirodela polyrhiza
photophysiology of turion germination in *Spirodela polyrhiza* (L.) Schleiden. IX. Interaction of light and gibberellic acid in the removal of dormancy, 343
Spore photoproduct
action spectra for survival and spore photoproduct formation of *Bacillus subtilis* irradiated with short-wavelength (200–300 nm) UV at atmospheric pressure and *in vacuo*, 69
Sporulation
changes in synthesis and abundance of specific polypeptides at early and late stages of blue-light-induced sporulation of *Trichoderma*, 117
Staphylococcus
in vivo effects of porphyrins on bacterial DNA, 295
Survival
action spectra for survival and spore photoproduct formation of *Bacillus subtilis* irradiated with short-wavelength (200–300 nm) UV at atmospheric pressure and *in vacuo*, 69

Temperature correction
temperature sensitivity of the Robertson–Berger sunburn meter, model 500, 277
Temperature response
temperature sensitivity of the Robertson–Berger sunburn meter, model 500, 277
Time-gated fluorescence
time-gated fluorescence spectroscopy of porphyrin derivatives and aluminium phthalocyanine incorporated *in vivo* in a murine ascitic tumour model, 319

Time-resolved coherent Raman
picosecond fluorescence and coherent anti-Stokes Raman spectroscopy study of relaxation of electronic excitation in β-carotene, 31
Transcript levels
phytochrome-dependent mRNA accumulation for nuclear coded photosystem I subunits in spinach seedlings, 129
Transcription (nuclear and plastid genes)
expression of early genes in light-induced chloroplast differentiation of cultured plant cells, 173
Transcriptional control
control of *cab* gene expression in synchronized *Chlamydomonas reinhardtii* cells, 139
Trichoderma harzianum
changes in synthesis and abundance of specific polypeptides at early and late stages of blue-light-induced sporulation of *Trichoderma*, 117
Triplet energy level
singlet oxygen and carotenoid interaction, 41
Tryptophan
effects of pH and ionic micelles on the riboflavin-sensitized photoprocesses of tryptophan in aqueous solution, 57
Tumor blood flow
tumor hypoxia, reoxygenation and oxygenation strategies: possible role in photodynamic therapy, 3
Tumor hypoxia
tumor hypoxia, reoxygenation and oxygenation strategies: possible role in photodynamic therapy, 3
Tumor interstitial fluid
tumor hypoxia, reoxygenation and oxygenation strategies: possible role in photodynamic therapy, 3
Turion
photophysiology of turion germination in *Spirodela polyrhiza* (L.) Schleiden. IX. Interaction of light and gibberellic acid in the removal of dormancy, 343
Two-quantum photoprocesses
two-quantum photoprocesses in DNA under picosecond laser UV irradiation at 216 and 270 nm, 269

UV radiation
action spectra for survival and spore photoproduct formation of *Bacillus subtilis* irradiated with short-wavelength (200–300 nm) UV at atmospheric pressure and *in vacuo*, 69
UVB photoreceptor
ultraviolet action spectra for the induction and inhibition of anthocyanin synthesis in broom sorghum seedlings, 353

Vacuum
action spectra for survival and spore photoproduct formation of *Bacillus subtilis* irradiated with short-wavelength (200–3300 nm) UV at atmospheric pressure and *in vacuo*, 69
Violet–red-light receptor
antagonistic blue- and red-light regulation of *cab*-gene expression during photosynthetic adaptation in *Scenedesmus obliquus*, 189